UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,705	10/15/2003	Takeshi Ohkubo	Q77937	3649

23373 7590 10/28/2008

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
SUNG, CHRISTINE	
ART UNIT	PAPER NUMBER
2884	
MAIL DATE	DELIVERY MODE
10/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/684,705	OHKUBO, TAKESHI	
	Examiner	Art Unit	
	CHRISTINE SUNG	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 18-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 18-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. The amendment filed on March 18, 2008 has been accepted and entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-16, 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (US Pre Grant Publication 2003/0042418A1) in view of Frelburger et al (US Patent 6,475,146 B1).

Regarding claim 1, Yamamoto discloses a radiation detecting cassette (Figure 3) comprising:

a solid state radiation detector (elements 11 and 12) for detecting radiation bearing image information and

outputting an image signal representing a radiation image (element 18a and 18b are signal lines which communicate the data collected);

a control means (element 15) for controlling the operations of the solid state radiation detector (controls elements 17a, 17b and 17c);

a cassette main body (element 10) having a case for housing the solid state radiation detector and the control means (elements 11-12 and 15 are housed within element 10); and

portable operating portion (Figure 1, element 30) for outputting command signals to the control means for operating the solid state radiation detector, formed as a separate unit from the cassette main body (element 30 is separate from element 10), and

wherein the command signals for operating the solid state radiation detector include command signals for performing radiation image recording (element 30 sends operational commands to element 10 for imaging).

Yamamoto fails to disclose that the portable operating portion is a handheld operating portion, but rather discloses a conventional computer console for operating and controlling the imaging detector. However, handheld controllers which provide operational commands to imaging detectors are well known in the art, as disclosed by Frelburger, et al. (See Figure 1, element 140, a handheld personal digital assistant, PDA, controls the imager, element 100). Further, Frelburger teaches that the PDA or handheld portable operating portion, can be adapted for computed radiograph (see column 3, lines 1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have adapted the detecting cassette disclosed by Yamamoto with the handheld controller disclosed by Frelburger in order to increase functionality of the

cassette by allowing various users to access and control imaging (see column 1, lines 59-63).

Regarding claim 2, Yamamoto discloses that the operating portion further comprises a display portion (element 34) for displaying the contents of the command signals.

Regarding claim 3, Yamamoto discloses that the operating portion further comprises an information receiving means for receiving information output from the cassette main body (see figures 1 and 3, elements 20 = communication output from element 10 is received by element 30); and

the display portion displays the information received by the information receiving means (element 34 displays images/data received, see paragraph [0109]).

Regarding claim 4, Yamamoto discloses that the information receiving means receives information representing an operating state of the solid state radiation detector (See paragraph [0109], discloses receiving information about radiographic conditions); and

the display portion displays the operating state of the solid state radiation detector (element 34 displays images/data received, see paragraph [0109]).

Regarding claim 5, Yamamoto discloses that the information receiving means receives the image signal output from the solid state radiation detector (see paragraph [0109], discloses receiving image data); and

the display portion displays an image based on the image signal (element 34 displays images/data received, see paragraph [0109]).

Regarding claim 6, Yamamoto discloses that the information receiving means receives the image signal output from the solid state radiation detector (see paragraph [0109], discloses receiving image data from the detector, elements 11-12); and

the display portion displays an image based on the image signal (element 34 displays images/data received, see paragraph [0109]).

Regarding claims 7-12, Yamamoto discloses that the operating portion is removably attachable to the case (element 30 is removable from element 10).

Regarding claim 13, Yamamoto discloses said command signals comprise:

at least one piece of information relating to readying the solid state radiation detector to record a radiation image (element 30 drives the radiation generator, element 60, see paragraph [0106]); and

information relating to readying the solid state radiation detector to read out a radiation image therefrom (element 30 also drives the circuit board element 14, which operates the detector).

Regarding claim 14, Yamamoto does not explicitly state all of the claimed command signals, however, such information is conventional information generated by radiation images.

Image grade, image frequency, image density, image contrast, image noise, grid pattern, energy subtraction and time lapse from drug administration are all well known factors that affect image quality, thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to account for all these factors in order to reduce errors attributed to these factors, thus increasing the quality and accuracy of the image detected.

Regarding claim 15, Yamamoto discloses a radiation detecting cassette (Figure 3) comprising:

a solid state radiation detector (elements 11 and 12) for detecting radiation bearing image information;

a controller (element 15) which controls the solid state radiation detector;

a cassette main body (element 10) having a case which houses the solid state radiation detector and the controller (elements 11-12 and 15 are housed within element 10); and

a portable operating portion (figure 1, element 30) which outputs command signals to the controller (element 30 sends control signals to element 15 to operate the detector), wherein said command signals operate the solid state radiation detector,

wherein said portable operating portion is disposed separately from the cassette main body (element 30 is separate from element 10), and

wherein the command signals for operating the solid state radiation detector include command signals for performing radiation image recording (element 30 sends operational commands to element 10 for imaging).

Yamamoto fails to disclose that the portable operating portion is a handheld operating portion, but rather discloses a conventional computer console for operating and controlling the imaging detector. However, handheld controllers which provide operational commands to imaging detectors are well known in the art, as disclosed by Frelburger, et al. (See Figure 1, element 140, a handheld personal digital assistant, PDA, controls the imager, element 100). Further, Frelburger teaches that the PDA or handheld portable operating portion, can be adapted for computed radiograph (see column 3, lines

1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have adapted the detecting cassette disclosed by Yamamoto with the handheld controller disclosed by Frelburger in order to increase functionality of the cassette by allowing various users to access and control imaging (see column 1, lines 59-63).

Regarding claim 16, Yamamoto discloses that the solid state radiation detector (elements 11-12) outputs an image signal representing a radiation image (see paragraph [0109], discloses that the signals output by the detector are received by element 30 and displayed by element 34. This includes images).

Regarding claim 18, Yamamoto discloses a radiation detecting cassette (Figure 3) comprising:

a solid state radiation detector (elements 11 and 12) for detecting radiation bearing image information and outputting an image signal representing a radiation image (element 18a and 18b are signal lines which communicate the data collected);

a control means (element 15) for controlling the operations of the solid state radiation detector (controls elements 17a, 17b and 17c);

a cassette main body (element 10) having a case for housing the solid state radiation detector and the control means (elements 11-12 and 15 are housed within element 10); and

portable operating portion (Figure 1, element 30) for outputting command signals to the control means for operating the solid state radiation detector, formed as a separate unit from the cassette main body (element 30 is separate from element 10), and

wherein the portable operating portion is precluded from outputting command signals during a period of time from reception of data indicating performance of one of a recording operation and a readout operation to data indicating that the one of the recording operation and the readout operation is complete (See paragraph [0097]), and

wherein the command signals for operating the solid state radiation detector include command signals for performing radiation image recording (element 30 sends operational commands to element 10 for imaging).

Yamamoto fails to disclose that the portable operating portion is a handheld operating portion, but rather discloses a conventional computer console for operating and controlling the imaging detector. However, handheld controllers which provide operational commands to imaging detectors are well known in the art, as disclosed by Frelburger, et al. (See Figure 1, element 140, a handheld personal digital assistant, PDA, controls the imager, element 100). Further, Frelburger teaches that the PDA or handheld portable operating portion, can be adapted for computed radiograph (see column 3, lines 1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have adapted the detecting cassette disclosed by Yamamoto with the handheld controller disclosed by Frelburger in order to increase functionality of the cassette by allowing various users to access and control imaging (see column 1, lines 59-63).

Regarding claim 19, Yamamoto discloses a radiation detecting cassette (Figure 3) comprising:

a solid state radiation detector (elements 11 and 12) for detecting radiation bearing image information;

a controller (element 15) which controls the solid state radiation detector;

a cassette main body (element 10) having a case which houses the solid state radiation detector and the controller (elements 11-12 and 15 are housed within element 10); and

a portable operating portion (figure 1, element 30) which outputs command signals to the controller (element 30 sends control signals to element 15 to operate the detector), wherein said command signals operate the solid state radiation detector,

wherein said portable operating portion is disposed separately from the cassette main body (element 30 is separate from element 10), and

wherein the handheld portable operating portion is precluded from outputting command signals during a period of time from reception of data indicating performance of one of recording operation and a readout operation to data indicating that the one of the recording operation and the readout operation is complete (See paragraph [0097]), and

wherein the command signals for operating the solid state radiation detector include command signals for performing radiation image recording (element 30 sends operational commands to element 10 for imaging).

Yamamoto fails to disclose that the portable operating portion is a handheld operating portion, but rather discloses a conventional computer console for operating and controlling the imaging detector. However, handheld controllers which provide operational commands to imaging detectors are well known in the art, as disclosed by Frelburger, et al. (See Figure 1, element 140, a handheld personal digital assistant, PDA, controls the imager, element 100). Further, Frelburger teaches that the PDA or handheld

portable operating portion, can be adapted for computed radiograph (see column 3, lines 1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have adapted the detecting cassette disclosed by Yamamoto with the handheld controller disclosed by Frelburger in order to increase functionality of the cassette by allowing various users to access and control imaging (see column 1, lines 59-63).

Regarding claims 20-23, Yamamoto dislcoses that the portable operating portion (element 30) displays (element 34) an imaging menu which sets imaging conditions for the detecting of the radiation bearing image information by setting at least one of an imaging portion of an object from which the radiation bearing image information is detected and an imaging method used for the detecting of the radiation bearing image information (see paragraph [0108], element 32, part of element 30, allows setting the necessary conditions for radiography).

Response to Arguments

5. Applicant's arguments with respect to claims 1-16, 18-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE SUNG whose telephone number is (571)272-2448. The examiner can normally be reached on Monday- Friday 9-5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTINE SUNG/
Primary Examiner, Art Unit 2884

CS